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Remington Arms Company Inc.  
 RESEARCH & DEVELOPMENT TECHNICAL CENTER  
 315 WEST RING ROAD  
 ELIZABETHTOWN, KY 42701

**Chronology of Events:**

- A Dynamic Sand & Dust Test was run on 9/16/00. Nothing unusual reported by the technicians.
- A Field Debris Test was run on 9/16/00. During this test the first two rounds were fired without incident. On the 3<sup>rd</sup> round the technicians reported that the gun fired while pushing the Safety from the "On" to the "Off" position. The test was stopped at this time. The gun was disassembled and a small particle was observed between the engagement screw and the trigger.
- It was noted that the procedures for both the Dynamic Sand & Dust and Field Debris Tests were not followed exactly as documented in the Test Plan. The three main procedural differences noted were:
  - 1. The Safety was cycled from "On" to "Off" after every shot was fired. The Test Plan specifically calls out cycling the Safety every 5 shots.
  - 2. The 10-lb. test procedure was not run in either case as spelled out in the plan.
  - 3. Only 5 rounds were fired in either test, however the test Plan calls for 20.
- The Field Debris Test was rerun on 9/27/00 per procedure defined in the test plan. The same two technicians were asked to run the test. An attempt was made to fire 20 rounds of ammunition. Seventeen of the 20 rounds were actually fired during the test. A total of four malfunctions occurred. The first malfunction was a Fail-to-Fire that was either a Follow-Down or an obstructed firing pin/firing pin head/Sear. The second through fourth malfunctions were feeding related (1 Fail-to-Feed from Magazine and 2 Stem-Lows). At no time during this test did an inadvertent discharge occur. The gun was again torn down, cleaned, lubricated with trigger pull and engagement reset.
- The Static Sand & Dust was run on 9/29/00. After application of the sand & dust debris the firearm would not fire. Five attempts were made to pull the trigger. At no time did the gun fire. In addition the firing pin did not fall. A new round was fed before the trigger was pulled for each of the five attempts. On the first attempt the trigger did not move. The bolt lift was easy when opening the bolt to cycle the second round, further evidence that the firing pin did not fall. On the second attempt the trigger moved slightly. On each of the three remaining attempts the bolt lift was easy when opened after the trigger was pulled. Trigger movement increased on each successive attempt but not enough to fire the gun. The test was stopped at this time since the gun would not function.
- A new engagement screw was designed by the design team and fabricated for further testing. This screw instead of having a spherical tip had a 60-degree cone shaped tip (see Dwg. B-300448, Alt. D). The full series of Debris tests were rerun to establish performance with this new engagement screw design. All three tests were rerun on 10/3/00. This time two different technicians were assigned to run the tests.
- The same gun, B-22, was torn down, cleaned, lubricated and fitted with the new engagement screw. Trigger pull and engagement were reset.
- During the Field Debris retest with the 60-degree cone shaped engagement screw 2 occurrences of a Fail-to-Fire were encountered. This happened on the 2<sup>nd</sup> and 8<sup>th</sup> rounds. During the first Fail-to-Fire trigger movement was detected when the trigger was pulled. No evidence of the firing pin falling was

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